

In the Claims:

1. (canceled) A pronunciation dictionary comprising:
 - an alphabetized text of words and corresponding phones;
 - overlapping characteristics with previous entry that are prefix delta encoded; and
 - a rule set to convert text to phones for text not in the dictionary and fit the rule set;and a processor coupled to said alphabetized text of words and numbers and said rule set to provide either said words and/or numbers corresponding one and only one sequence of phones or a sequence of phones corresponding to said words and/ or numbers.
2. (canceled) The pronunciation dictionary of Claim 1, including an error encoded set for those entries different from the rule set wherein the entry only contains the difference with the rule set predictions.
3. (canceled) The pronunciation dictionary of claim 2, wherein said error encoded set to be prefix delta encoded.
4. (canceled) The pronunciation dictionary of claim 3, including a delimiter character between each entry.
5. (canceled) A pronunciation dictionary comprising:
 - a rule set to convert text to phone for text not in the dictionary; and
 - an error encoded set for those entries different from the rule set wherein the entry only contains the difference with the rule prediction.
6. (canceled) The dictionary of claim 5, wherein said error encoded set is prefix delta encoded.
7. (canceled) The dictionary of claim 6, including a delimiter character between each entry.
8. (canceled) The dictionary of claim 5, including
 - an alphabetized text and corresponding phones; and
 - overlapping characters with previous entry are prefix delta encoded.

9. (canceled) A processor chip for speech recognition comprising:
- a processor, and
 - a pronunciation dictionary comprising:
 - alphabetized text and corresponding phones;
 - overlapping characters with previous entry are prefix delta encoded;
 - a rule set to convert text to phone for text not in the dictionary; and
 - an error encoded set for those entries different from the rule set wherein the entry only contains the difference with the rule prediction.
10. (canceled) A method of making a pronunciation dictionary that comprising the steps of:
- alphabetizing text and corresponding phones;
 - prefix delta encoding overlapping characters with previous entry; and
 - providing a rule set for converting text to phones according to said rule set for text not in the dictionary and fit the rule set.
11. (canceled) The method of claim 10 including the step of: providing error encoding of the difference from the rule set for those pronunciation of text not in the alphabetized text and not fitting the rule set.
12. (canceled) The method of claim 11, wherein the error encoding is prefix delta encoded.
13. (canceled) The method of claim 12, including the step of adding a delimiter between each entry.
14. (new) A processor for creating a reduced size encoded pronunciation dictionary from an input pronunciation dictionary such that the encoded pronunciation dictionary does not need to be expanded to a larger size in order to be utilized, comprising:

a reading and sorting processor to read an input pronunciation dictionary and sort the words of the dictionary in alphabetical order;

a word encoder that encodes each word of the pronunciation dictionary by comparing the word with the prior word encoded and either outputs the number of prefix characters that match both the word and the prior word beginning characters if the number of matching characters is greater than or equal to N followed by the suffix characters of the word after character N, or outputs all characters of the word if the number of prefix characters that match the word and prior encoded word is less than N;

a text-to-pronunciation processor that operates on the word to be encoded to generate a pronunciation hypothesis;

a pronunciation comparer that compares the pronunciation of each word by comparing the pronunciation of the word from the input pronunciation dictionary and the pronunciation hypothesis from the text-to-pronunciation processor and determines the minimum number of pronunciation differences consisting of substitutions, deletions and insertions that need to be corrected in the pronunciation hypothesis to convert it to match the pronunciation of the input pronunciation dictionary; and

a pronunciation encoder that compares the pronunciation differences of the word to the pronunciation differences of the prior encoded word and either outputs the number of prefix differences that match the beginning of both the word differences and the prior word differences followed by the suffix differences of the word if the number of prefix matching differences is greater than or equal to M, or outputs all differences to the word if the number of prefix differences that match the word and prior encoded word is less than N.

15. (new) The processor of Claim 14 where $N = 2$.

16. (new) The processor of Claim 14 where $M = 1$.

17. (new) The processor of Claim 14 where the input pronunciation dictionary and the text-to-pronunciation processor provide the pronunciation of a word in terms of phones of a language.

18. (new) The processor of Claim 14 where the output characters of the word encoder are in bytes.

19. (new) The processor of Claim 14 where the pronunciation encoder outputs the number of prefix differences that match as a byte character.

20. (new) The processor of Claim 14 where the pronunciation encoder outputs a substitution difference as two byte characters which indicate the difference is a substitution, the location of the difference, and the pronunciation difference to substitute.

21. (new) The processor of Claim 14 where the pronunciation encoder outputs a deletion difference as two byte characters which indicate the difference is a deletion, the location of the difference, and the pronunciation difference that was deleted.

22. (new) The processor of Claim 14 where the pronunciation encoder outputs an insertion difference as one byte character which indicates the difference is an insertion and the location of the difference.

23. (new) A method for creating a reduced size encoded pronunciation dictionary from an input pronunciation dictionary such that the encoded pronunciation dictionary does not need to be expanded to a larger size in order to be utilized, comprising the steps of:

reading an input pronunciation dictionary and sorting the words of the dictionary in alphabetical order using a processor;

encoding each word of the pronunciation dictionary by comparing the word with the prior word encoded and either outputting the number of prefix characters that match both the word and the prior word beginning characters if the number of matching characters is greater than or equal to N followed by the suffix characters of the word after character N, or outputting all characters of the word if the number of prefix characters that match the word and prior encoded word is less than N;

operating on the word to be encoded by a text-to-pronunciation processor to generate a pronunciation hypothesis;

comparing the pronunciation of each word using a pronunciation comparer by comparing the pronunciation of the word from the input pronunciation dictionary and the pronunciation hypothesis from the text-to-pronunciation processor and determining the minimum number of pronunciation differences consisting of substitutions, deletions and insertions that need to be corrected in the pronunciation hypothesis to convert it to match the pronunciation of the input pronunciation dictionary; and

comparing the pronunciation differences of the word to the pronunciation differences of the prior encoded word by a pronunciation encoder and either outputting the number of prefix differences that match the beginning of both the word differences and the prior word differences followed by the suffix differences of the word if the number of prefix matching differences is greater than or equal to M, or outputting all differences to the word if the number of prefix differences that match the word and prior encoded word is less than N.

24. (new) The method of Claim 23 where $N = 2$.

25 (new) The method of claim 23 where $M=1$.

26. (new) The method of Claim 23 where the input pronunciation dictionary and the text-to-pronunciation processor provide the pronunciation of a word in terms of phones of a language.

27. (new) The method of Claim 23 where the output characters of the word encoder are in bytes.

28. (new) The method of Claim 23 where the pronunciation encoder outputs the number of prefix differences that match as a byte character.

29. (new) The method of Claim 23 where the pronunciation encoder outputs a substitution difference as two byte characters which indicate the difference is a substitution, the location of the difference, and the pronunciation difference to substitute.

30. (new) The method of claim 23 where the pronunciation encoder outputs a deletion difference as two byte characters which indicate the difference is a deletion, the location of the difference, and the pronunciation difference that was deleted.

31. (new) The method of claim 23 where the pronunciation encoder outputs an insertion difference as one byte character which indicates the difference is an insertion and the location of the difference.